The RARS EXCITER

RALEIGH AMATEUR RADIO SOCIETY
RARS
WORLDWIDE FRIENDSHIP

No 309, January 1996 - Repeaters: 146.64-, 224.64-, 444.525+, 444.95+ BBS:772-9176

What Is PL, and Why Should I Care?

What does "PL" mean? It's an acronym for Private Line, Motorola's trademarked continuous-tone-controlled squelch system (CTCSS). Competing names include Quiet Channel and Call Guard. But let's call all such systems "CTS."

When you "open" your radio's squelch control, you hear a rushing sound-- a combination of receiver front-end noise, solar noise, man-made noise, etc.

The squelch circuit in your receiver samples this noise. When you rotate your squelch control clockwise, at a certain point the noise stops. At that point, the level the control sets matches the noise. Further clockwise rotation "closes" the squelch system, shutting down the audio except for signals stronger than whatever level you set.

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JANUARY RARS PROGRAM: HT PROGRAMMING CLINIC

IF YOU NEED HELP getting things like memories, offsets, CTCSS tones and such programmed into your HT, at the January RARS meeting program we'll try to help you out. Bring your HT... AND YOUR MANUAL!

IF YOU KNOW YOUR HT PRETTY WELL, we need you as an "Elmer" to help the folks who are just learning their radios.

We will divide into groups based on manufacturer—Icom, Kenwood, Yaesu, Radio Shack, Alinco and maybe "others." From there, we will "pair off" the helpers with the helpees.

The W4DW DX PacketCluster (TM)

The W4DW DX PacketCluster is a part of a packet radio based network system. This system permits hams to communicate DX and contest station information to each other. During emergencies and emergency exercises the system will be turned over to ARES functions. The system uses personal computers or data terminals connected to a radio transceiver through a device called a Terminal Node Controller(TNC).

PacketCluster Software

PacketCluster is a copyrighted software program written by AK1A and Pavilion Software that is oriented to the DXer or contester. PacketCluster allows users to connect their packet stations to the W4DW node. PacketCluster also allows PacketCluster nodes, like W4DW, to connect together to form a cluster.

I heard a good one!

When rare DX, or a good pile-up, or a new multiplier, is spotted by a ham, he or she posts a spot to their local node. The spot looks like this: DX ZA1A 14010 very loud now This spot says that ZA1A was heard on 14.010 MHz and is very loud now. The spot is broadcast to everyone connected to the local PacketCluster node.

But the spot is also broadcast to all of the

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The Raleigh Amateur Radio Society, Inc. (RARS), founded in 1969, has grown to be one of the premier radio clubs in North Carolina. Current membership is approximately 400.

The objectives of the club are to promote world wide friendship through Amateur Radio; to be of public service by providing radio communication in times of disaster, emergency, or civic need; to educate members in radio technique, and to assist in obtaining Amateur Radio licenses.

All persons interested in Amateur Radio, currently licensed or not, are eligible to apply for membership to the club.

Dues to the club are $18.00 per year (which runs from July 1 to June 30). Applications for membership may be obtained from any of the officers named below; from the newsletter editor, named on the facing column; or at any RARS Meeting.

Club meetings are held the first Tuesday of every month, 7:30 PM, at Forest Hills Baptist Church, on the corner of Clark Avenue and Dixie Trail, just off of Hillsborough Street.

In addition to the many social and special events, the club sponsors a 2 m repeater, W4DW, on 146.04/64 MHz. The club also sponsors repeaters on 223.04 / 224.64 MHz, 449.5 / 444.5 MHz, 449.95 / 445.95 MHz and a packet cluster node on 147.57 MHz. All repeaters cover Raleigh, and most of the surrounding Wake County area. The auto-patch on W4DW is now no longer closed and is open to all duly licensed amateurs.

1996 Officers:

President:	Cyndi Wood KD4ACW 116 Waterfall Court Cary, NC 27513 380-7286
Vice President	Bruce Buck KC4UQN 305 Hillstone Drive Raleigh, NC 27615 848-4538
Secretary:	Jeff Wittich, AC4ZO 211 Dundalk Way Cary, NC 27511 362-9456
Treasurer:	Mike Murphy, WA4BPJ 7329 Barberry Court Raleigh, NC 27615 847-4641

The EXCITER is published monthly by the Raleigh Amateur Radio Society, and is mailed at no cost to its members.

Letters to the Editor, technical articles, items of interest to the ham community and guest editorials are actively solicited.

Any article published in the EXCITER does not necessarily represent the views of, the Officers, Board of Directors, Editor, or Society Membership, nor does publication thereof represent concurrence by the Officers, Board of Directors, Editor, or Society membership with the contents of the article.

Articles will be printed at the discretion of the Editor, and no article will be published unless it is accompanied by the name(s) of the person(s) submitting the article.

All copy must be in the hands of the editor by the end of the Board of Director's meeting on the third Tuesday of each month. Articles submitted for publication may be hand or type written, an ASCII file on disk transmitted electronically via telephone modem, or on the ham bands using PACKET.

Ham related items for sale by the members will be advertised without charge for one issue, but may be re-submitted as often as desired. These ads must be non-commercial in nature.

Commercial ads will be run in return for the following donations to the club:

	Single Issue	**Full Year**
Business Card	$7.50	$75.00
Quarter Page	$11.25	$112.50
Third Page	$15.00	$150.00
Half Page	$22.50	$225.00
Full Page	$50.00	N/A

(Commercial ads must be of "camera-ready quality," and obviously can not be sent via ham bands.) Due to the reprographic process used, no color copy can be accepted.

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SPECIAL SERVICE CLUB

ARRL

Young Ladies' Radio League

AMSAT

SOUTHEASTERN REPEATER ASSOCIATION

SOUTHEASTERN REPEATER ASSOCIATION MEMBER

New Sony Shortwave Radio

Sony has announced a completely new WorldBand radio model ICF-SW1000T that is just shipping to dealers now. This model is unlike any other Sony World Band Radio. This unit integrates a stereo cassette recorder/player in the world band receiver. When the built-in stereo cassette player is used with Timer Rec/Play feature, you can enjoy easy and convenient time shift recording.

The details are as follows:
Model#: ICF-SW1000T
Sugg. List: $699.95
Availability: November 1995

World Band Receiver features:

LW/MW/SW/FM/SSB Reception
Synchronous Detector
10 Key Direct Access
Dual Stand-by
32 Station Memory Presets
1 kHz step tuning
FM Stereo Reception
Built-in Clock with Alarm
Sleep Timer
Stereo Mic, Stereo HP, Active Antenna, carrying case

Cassette features:

Built-in Stereo Cassette recorder and player
Timer Rec/Play capability
Cue/Review
Auto Reverse
Feather Touch Mechanism
Auto Tape Select

"Street" Price: $549.95
Electronic Equipment Bank, Virginia

Chuck — N9NON
EEB's web site
(http://www.access.digex.net/~eeb/eeb.html):

Reflections on 1995

With the passing of another year, and a new President prepared to lead us into 1996, I would like to pause for a moment, and thank Rick, KA3PSK, for his contribution over the last two years. There were some difficult times for Rick. You see, Rick does not like people to be dissatisfied... or unhappy. And when dealing with a group as large as RARS, there is enough variety of ideas, and difference of opinion, that often, individuals or groups are dissatisfied for one reason or another. Although he was uncomfortable with the responsibility from time to time, I have never known him to resolve any situation in anything other than a responsible manner. Rick, you have done well, and thanks for your ideas, leadership, and friendship.

Also I would like to thank the members of the Raleigh Amateur Radio Society for re-electing me to the position of Secretary. It is a job that I have enjoyed for the last two years, and look forward to serving you for the next two.

73,
Jeff - AC4ZO

Russian Radio Homepage

Welcome to IRKUTSK DX Club !
http://www.icc.ru/fed/radio.html

This is our new Home Page. It is in permanent development. There is detailed information about broadcasting on shortwaves from/to Russia. Every updating will have the announce at newsgroup rec.radio.shortwave. There was the program about our Irkutsk Home Page on the Radio Liberty recently.

Merry Christmas and a Happy New 1996 Year !

73!
Fedor Babanine and Feodor Brazhnikov
via Usenet

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gother nodes in the cluster and from each of those nodes to all of the users logged in to those nodes. So a single DX spot may be sent to hundreds of stations! Conversely, any single station connected to the PacketCluster will receive DX spots from any of the 300 or more stations also connected throughout the cluster!

What else can it do?

The PacketCluster computer also has a number of on-line databases that include information on QSL managers, bureau addresses, ham oriented 800 numbers, contest dates, ham equipment dealers, contest dates, and the FCC database of all licensed US amateurs.

Can I use it?

The W4DW PacketCluster is open to any person who is seriously interested in DX and no contest club or DX affiliation of any kind is required. The PacketCluster is not designed with casual packeteers, tinkerers, or curiosity seekers in mind. It is targeted for use by those hams who are involved in the DXing phase of the hobby. Nodes are on 147.57, 145.09 (connect W4DW (or RDUPC))and 144.93MHz (connect SWAN and then type DXC after you connect) at 1200 baud. There is also 1200 baud access from point south east of Raleigh through DXJARS on 145.67 MHz (connect DXJARS and then C W4DW). There are other access nodes North and East of Raleigh and also West of Raleigh that are in final planning stages so that almost anyone within 50 miles of W4DW will have some access node. As these nodes get on the air, their frequencies will be announced thorough the Exciter.

How do I get started?

One of the easiest ways to get started using the PacketCluster is with the help of a ham friend who uses the PacketCluster. There is also an excellent user manual which is available for $10 (picked up) or $15 (sent by mail). The manual includes a comprehensive command reference, frequency, baud and node information, TNC configuration and other very important information you will need to enjoy all of the PacketCluster features.

If you have been using packet radio and want to log into the cluster you may not have to make changes to your packet set up. You should read the section on TNC setup. The big difference with the cluster versus what you may be used to, is you connect to the cluster and stay connected to the cluster for all functions. You will be able to communicate with other stations that are also connected to the cluster without connecting to them directly.

Please NO BEACONS! NO CW-IDs! If you want to experiment or connect to another station please move to a different frequency from the cluster inputs.

What about equipment I need?

Any average amateur packet station will do. You need a Terminal Node Controller (TNC), a 2-meter transceiver (use of handy-talkies is definitely discouraged), and a simple ASCII terminal and keyboard. The latter requirement may be met by a computer running most any kind of terminal software package such as is used to interface the computer to a telephone modem. Simple programs are available for all the popular types of personal computers (e.g. PCPLUS).

Many users have only a simple, "dumb" ASCII terminal connected to their TNC— and this suffices quite nicely. Some advanced users have custom terminal programs that interpret data coming from the cluster sounding audio alerts, tuning rigs to the frequency and mode, pre-loading a logging program with pertinent information, and rotating directional antennas when needed DX is posted etc. The display associated with the terminal or computer should have, preferably, 80 columns since the information presented is formatted that way.

Many TNCs are available and all operate basically the same way; but, as with any equipment, some are better than others. The most popular units are built by AEA, Kantronics, and MFJ. All are compatible with each other.

Most omni-directional antennas are OK to use—it is important that you put a nice clean signal into the system and have your deviation adjusted properly—and it is also fairly important that you are heard by as many users around you as is practical—the nature of packet is such that it does its best to

avoid collisions with other packets—and that means it is necessary that other DXers on the system hear you as well as making sure the network node hears you. A good omni-directional antenna at the highest level possible is recommended. And run as much power as you are able so that everyone will hear you and not "walk all over you".

Who Operates the PacketCluster?

The RARS PacketCluster is operated by the SWAN Island DX Association, an association of its users. There is a monthly informal users meeting at O'Malley's on HWY. 70 west of Crabtree Valley. The meetings are held approximately at 5:30 PM to 7:30 PM. There is food, technical discussion and occasionally some bragging. Everyone who is interested in DXing or contesting is cordially invited to attend.

The PacketCluster system operator (SYSOP) is Rick, KA3PSK. A Technical / Planning Committee is headed by Paul, NO0T and Mike, NT4O. The Treasurer is Mike, KE4END. Bob, KB9MS also performs RF & electronic maintenance when he is available. Many people too numerous to credit, donate their time and money. It has been customary that if you use the cluster, you should consider a donation to assist with its operation.

How is the PacketCluster funded?

The PacketCluster has been financed over the years by a balance of voluntary user donations (donations are welcome at any time) and by a RARS budget allocation. Donating users may or may not be RARS members. Most users making donations did so to show their support for maintaining and improving the PacketCluster. The PacketCluster network is not cheap to install and maintain. Computers, radios, antennas, miscellaneous equipment and software cost money (over $1500 in 1994). Neither donations or the RARS budget alone can adequately fund the PacketCluster operation.

What is planned for the future?

A UHF user access at 9600 baud is planned very soon; when it becomes operational, details will be available when you log onto the cluster on VHF and also in the RARS Exciter.

Many improvements have been done and are planned for the backbone. That's the highway that brings DX spots and DX related mail/bulletins from both the North Eastern U.S. as well as the South East (excluding Florida). We have been steadily improving the pathways from 1200 baud to 9600 baud. This helps to ensure that the spots and other information can get here in a reasonable time and network congestion is minimized.

Cluster access nodes are being placed on-line even as you read this. Additional user growth must be properly accommodated. During a "contest" weekend there are times there are at times 8 to 10 new DX spots seen each minute. With 25 users attached to the cluster, that is almost 250 DX spots that need to be sent out and acknowledged each minute. That's a lot of packet information that needs to be sent out - and that's why there are many different frequencies for the W4DW cluster.

And there's more new features that are in process:

New Cluster software - richer in features from VE3CDX to replace the unsupported cluster software we now use.

New computer upgrade to 486 to improve performance and to handle more applications and features

Updated Hamcall Database that gives ham's location coordinates etc. Also includes over 100 other countries ham addresses.

Provide remote SYSOP access to the cluster to allow other system operators access to the cluster via phone lines to assist KA3PSK with file and database management etc.

Additional wiring improvements at KA3PSK to provide for UPS powering during CP&L power failures (storms or other natural disasters).

Addition of a second PacketCluster node located at the State EOC offices in Raleigh to supplement the W4DW PacketCluster and provide redundancy for national and state emergencies. This may require purchases of additional hardware, radios, antennas and cluster software if necessary.

This second PacketCluster node will be maintained and operated by same group supporting the W4DW PacketCluster. Trained volunteers will be needed to support this node at the State EOC in time

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of disasters or drills.

Additional access to the W4DW PacketCluster has been requested through the National Weather Service to pass weather related emergency traffic when needed.

It has been proposed based on discussion at the PacketCluster SIG Planning committee meeting that an annual nominal user fee of $10 be imposed next year, beginning with January 1996, to replace the donation part of the PacketCluster funding (this requirement may be waived in the case of hardship). The annual fee serves to more evenly distribute the financial responsibility for the PacketCluster operation among its users. There are many users who contribute more than the $10 suggestion and who also put in many hours of their personal time to ensure that the PacketCluster continues to serve the ham community in Raleigh.

The technical and planning committee meetings are always open to anyone who wants to contribute their time and energy in helping to run and plan the cluster operations. Participation is highly encouraged.

It is hoped that a social event (such as a pig-picking or DX dinner) can be held next year (to be funded partially from the user fee). This is similar to operation of other SIGs within RARS (e.g. VHF/UHF SIG). and we are always looking for folks who have some expertise in ham cooking as well as ham radio.

Mike KE4END

Contacts for more information:

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WHAT IS PL?

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With the squelch closed, the radio is still receiving, but you hear nothing until a signal comes on that is stronger than the level you've set. A strong enough signal "opens" the squelch, turning the audio on, so you can hear the signal's modulation. Squelch eliminates that rushing noise when there's no signal on frequency.

Years ago, rather than let any random signal bring up a repeater, some hams used "whistle up." The repeater's control circuits required a certain tone frequency before it would turn on the repeater's transmitter. To hit the right tone, you whistled siren-like into the mike until the repeater came on. And of course, if you matched the tone right away, everyone heard the rest of your whistle.

Tone Burst

Technology marches on. Some inventor game the transmitter the required tone (allowing you to access the repeater while eating salty crackers :-). So the radio had to transmit the tone each time you keyed up. The process became known as "tone burst." Some European countries still use this method, and as recently as five years ago, some radios offered tone burst as an option.

CTCSS

Today's systems keep the tone there all the time-- *continuous*-tone-coded squelch. A constant 1750 Hz tone would be annoying, to say the least, so designers made use of the fact that most speech audio falls between 500 and 2500 Hz. They put the tone frequencies well below that range-- "subaudible tone," also called CTS. Many receivers feature a built-in "high-pass" filter that removes the tones from the received audio.

If we want to hear only certain people, groups, club members, or repeaters when they are on a frequency, we assign the group the same tone frequency to send (encode) ad receive (decode). Others on the frequency can avoid being bothered by our chatter by using different tone frequencies. Neat, huh!

Commercial two-way radio companies have

long used this system, which allows several groups of customers to share a repeater. The companies even set up a standard set of 38 CTS tones, as follows (all frequencies in Hz):

1. 67.0	2. 71.9
3. 74.4	4. 77.0
5. 79.7	6. 82.5
7. 85.4	8. 88.5
9. 91.5	10. 94.8
11. 97.4	12. 100.0
13. 103.5	14. 107.2
15. 110.9	16. 114.8
17. 118.8	18. 123.0
19. 127.3	20. 131.8
21. 136.5	22. 141.3
23. 146.2	24. 151.4
25. 156.7	26. 162.2
27. 167.9	28. 173.8
29. 179.9	30. 186.2
31. 192.8	32. 203.5
33. 210.7	34. 218.1
35. 225.7	36. 233.6
37. 241.8	38. 250.3

With the RF spectrum getting ever more crowded, we began to experience interference on our radios and especially on our "high profile" repeaters. To avoid mutual interference, repeater frequencies are not reused in the same locales, but the growing number of repeaters still causes problems. Putting the repeaters on CTS, using different tone frequencies, can help.

But older radios can't "memorize" CTS tones and associate those tones with selected channels. One way to minimize the difficulty this causes is to put all the repeaters in a given city on the same CTS tone. The is why all the repeaters in the Columbus (Ohio) area use the 123.0 Hz tone.

CTS On Simplex

You don't need a repeater to use CTS. If you monitor a frequency, waiting for calls from a particular friend or group of friends, and you don't wish to hear the other chatter on the frequency, CTS is for you. Just pick a tone frequency and set all the group's radios to encode and decode that tone when they are tuned to the chosen channel.

Here's another way the Columbus area has used CTS. The weather watch on the Columbus 146.76 repeater uses the Columbus-standard 123.0 tone, but when the repeater goes into its "weather alert" status, it transmits a 71.9 Hz tone for about 60 seconds--long enough to hear the touch-tone alert sound. So Columbus area users who set their radio to 146.76 and to decode the 71.9 Hz tone don't have to hear people chatting on the repeater, but if the weather alert function is activated, they will hear it.

Intermod

Spectrum crowding creates "intermod," in which the receiver can't adequately reject strong signals on nearby channels. But as long as none of the "mixed-in" signals use the CTS tone you've set your receiver to decode, you won't hear them.

So CTS is worth having, for many reasons. It's especially useful in crowded cities, but even in uncrowded areas it's nice to be able to monitor a frequency or repeater, and hear only those people you choose to hear.

Larry Kirby KA4MWP
Co-Editor
Central Ohio Amateur Radio Emergency Service Bulletin

Form 610V Now Available

The new Form 610V can be found via Internet on the Federal Communications Commission ftp site:

ftp.fcc.gov/pub/forms/form610v

It is a .PCX file and they even provide a copy of WinJPEG for viewing and printing the form. The 610V can also be found in:

... /pub/forms/form610

All of these files have been ZIPPED.

I have been told that these forms, as printed using WinJPEG, are acceptable to the FCC.

Joe KK5SQ
via Usenet

Clockwork Radio Is Music For The Masses

CAPE TOWN - A British inventor's dream became a reality yesterday with the completion of the first batch of clockwork radios at a Milnerton (about 8 miles outside Cape Town) factory.

The trickle of Freeplay radios from the BayGen South Africa factory do not use batteries or electricity and is expected to grow to a stream of 1-million a year to satisfy the enormous worldwide demand.

The radio provides an answer to communication problems in Africa and throughout the developing world, where the cost of power restricts radio use.

The simple principles behind Trevor Baylis' invention were toasted at a Cape Town gathering of the project's backers yesterday.

These included Baroness Lynda Chalker, the British Minister for Overseas Development, whose Overseas Development Administration provided financial assistance of more than R800 000. ($1 = R3.66)

With funding from other major backers - the Liberty Life Foundation and the Kagiso Trust - the South African production of the radio has backing of about R3-million.

Half the staff at the Montague Gardens (an industrial area) plant are drawn from six organizations for the disabled.

Balis devised what he patented as the Baylis generator in London, after watching a BBC television documentary on AIDS in Africa, which highlighted the effects of poor communication on health education.

The Freeplay radio is the first appliance to be powered by Baylis' generator.

Less than 20 seconds' of winding provides 40 minutes of play time and the spring in the generator is designed to last for 10 000 winds.

The radio, containing the generator, weighs 3 kg and produces distortion-free, picking up stations on FM, medium wave and short wave.

It is expected to be in demand in any market where the cost of batteries or electricity put appliances out of reach of the population, or where batteries and electricity are not available.

Uganda's Ministry of Information has established that nearly 3-million of the clockwork radios are needed in that country alone.

Production from the Cape Town factory is destined for Mozambique, Angola and Zimbabwe. Aid organizations will send the radios to places like Rwanda and Bosnia.

But the Milnerton-made radios will also be seen on the shelves of Harrods in London, where a price tag of 60 pounds (about R350) will help the supply of further radios to needy area's. Ironically, the radio will not go in sale in South Africa immediately because of the duties it attracts, despite its potential development role and an endorsement from President Nelson Mandela.

Import surcharges must be paid on components used in the manufacture of the Freeplay radios and all radios are classified as luxury items, incurring an extra duty on resale.

Chris Staines, chief executive of BayGen South Africa, said the duties added 37% to the retail price, making the radio a non-viable economic prospect in South Africa at the moment.

"We don't know how we'll get around it, but we will," he said.

A special provision to free the radio from duties was being discussed by the British and South African governments and it was expected to be on sale here in mid-1996.

A host of other appliances, including lamps, mobile telephones and portable computers, would soon be powered by the Baylis generator, Staines said.

Piet Conradie
from THE STAR (Johannesburg Daily)
via Usenet

The RARS
TRADERS NET
meets each
THURSDAY NIGHT
at 9:00PM
on the 146.64 MHz repeater.

MINUTES OF THE MEETING

RARS Board Meeting

November 21, 1995

The monthly Board meeting of the Raleigh Amateur Radio Society was held at the Forest Hills Baptist Church on November 21. The meeting was called to order by KC4UQN at 7:16p in the absence on KA3PSK. Members present were: KD4ACW, KN4AQ, WA4BPJ, KM4BU, WA4PEN, KA3PSK, KO4QH, AD4UL, KC4UQN, KD4YU, and AC4ZO.

The October minutes were approved on motion by WA4PEN, seconded by AD4UL.

WA4BPJ gave the Treasurer's report. RARS membership is 334.

In his VP report, KC4UQN said that the program for the December meeting will be the annual RARS Christmas party, and entertainment will be provided by the RARS All Ham Band. Bruce stated that he would like to find help to decorate the hall.

At the January meeting, the VHF/UHF SIG will present Gary KN4AQ and a presentation on programming HTs.

A special Committee report was made by KD4YU on the RARS Van Plan. Curt will be leading a delegation to look at a van on Friday November 24 at the WRAL transmitter site. The purpose of the trip would be to evaluate the suitability of this vehicle for our needs.

KN4AQ reported on the activities of the FM committee. He said that there has been work going on with the 146.64 repeater. Specifically, a tone control board has been installed by WA4BPJ that provides switching of a PL tone with the receiver activity. It also provides a distinctive tone to alert control operators when the repeater is operating on battery backup. This tone control board also improves the repeaters usefulness with a cross-band repeater.

KA3PSK arrived at this point, and the Chair was relinquished to him.

KD4YU read the nominating committee report in the absence of K4HF.

Under new business, a motion was made by AC4ZO to cancel the December Board of Directors meeting. The motion was seconded by KC4UQN but was then withdrawn during discussion.

A special meeting of the Board was scheduled for 7:00p on December 5 to discuss expenses pertaining to the van, should it be acquired.

A motion was then made by AC4ZO, seconded by KC4UQN, to cancel the December Board od Directors meeting. The motion was carried.

KN4AQ announced that N1GMV is about to discontinue operating a Packet bulletin board system (PBBS) in this area. The replacement facility will be operated by WA4MJF. There is a small amount of equipment needed at WA4MJF to provide this service, including a 440 Mhz antenna, 100' coax, and a KPC9612 TNC. A used TNC of this model is available from N1GMV, so a motion was made by KN4AQ to purchase this modem from N1GMV for use at WA4MJF. The motion was seconded by KM4BU, and after discussion, was carried.

The following announcements were made:

KN4AQ - The FM committee will make adjustments to their organization. There will be a Chief Operator, which will administer the operation of the repeaters, and several engineers to do the technical work on the equipment.

Gary has been updating the RARS Welcome Package which gets sent to new members. Copies have been sent to various people for review, and the new edition is expected to be available around January 1.

KE4FCJ - Membership Services has a new library, and librarian. The library contains video tapes of interest to RARS members, and a few books. Pat expects that these items will be available for checkout by members beginning at the January meeting. The RARS librarian is Bobbie KD4ZVW.

KN4AQ - Gary has been updating the RARS Welcome Package which gets sent to new members. Copies have been sent to various people for review, and the new edition is expected to be available around January 1.

KO4QH - There were 21 graduates from the recent RARS class. A general class upgrade study group is planned to run in parallel with the next class.

On motion by WA4PEN the meeting adjourned at 8:55p.

Respectfully submitted,
Jeff Wittich, AC4ZO - Secretary

Special Board Meeting

The special meeting of the Raleigh Amateur Radio Society Board of Directors assembled at the Forest Hills Baptist Church on 5 December, 1995 at 7:00p. The purpose of the meeting was to discuss issues pertaining to the RARS van which needed to be brought to a membership vote before the close of the year. The meeting was called to order by KA3PSK at 7:01p and the members present were: KD4ACW, KN4AQ, WA4BPJ, K4HF, KB4MDZ, WA4PEN, KA3PSK, KO4QH, KC4UQN, and AC4ZO.

KA3PSK listed the business for the meeting.

A motion was made by AC4ZO, seconded by KB4MDZ to approve the expenditure of seventy dollars for an answering machine for the RARS hot line. The motion was carried.

A motion was made by AC4ZO, seconded by KO4QH to set the time to adjourn at 7:25. This motion was carried.

WA4BPJ gave a report on the condition of the van. Through the ensuing discussion, it was determined that the van could be made operational for the sum of two thousand dollars. It was also noted that the Communication Support Corporation could fund no part of this expense.

WA4PEN moved that the Secretary make a motion in the next General meeting that the membership approve the expenditure of up to two thousand dollars to cover expenses through June 30 of getting the van operational. The motion was seconded by AC4ZO, and then was carried.

On motion by WA4PEN, seconded by KC4UQN, the meeting adjourned at 7:22p

Respectfully submitted,
Jeff Wittich, AC4ZO - Secretary

Regular RARS Meeting

December 5, 1995

The regular meeting of the Raleigh Amateur Radio Society was held on December 5, 1995 at the Forest Hills Baptist Church on Clark Avenue. The meeting was called to order at 7:32p by Rick KA3PSK.

Several birthdays were announced, and a rather unusual arrangement of an old familiar birthday tune was sung.

Mike WA4BPJ gave the Treasurer's report, and said that RARS membership is about 335.

At this point, Rick introduced Reed Whitten - AB4W, our ARRL Section Manager. Reed presented the following ARRL Field Organization certificates:

WA4MJF - Official Bulletin Station (OBS)
AC4ZO - Official Observer (OO)
KN4AQ - Public Information Coordinator (PIC)

Also Reed presented the Emergency Communication Commendation certificate to Charles KE4TUD for his handling of an emergency situation on the 146.64 repeater.

Rick then introduced Dick, KD4ISC, who announced that he had been appointed SkyWarn E.C. He publicly thanked Jerry, AI0K, for his work in that capacity in the past. Dick announced that a Skywarn information net will take place on the 146.88 repeater on Wednesday, 6 December after the ARRL net, and that there will be monthly Skywarn information nets scheduled.

Rick announced that Operation Santa is scheduled for Thursday, 14 December.

Gary KN4AQ announced that the program for the January meeting will be a HT programming clinic. Members are invited to bring their HTs (and owner manuals) and those with experience in this area have signed up to do the "Elmering."

Woody KJ4SO announced that the VHF/UHF SIG meeting and Christmas party is scheduled for Wednesday, 13 December at the Panda Inn, at Celebration at Six Forks.

Rick reported on the progress of the "Van Plan". A motion was made by Jeff AC4ZO to approve a special fund expenditure of up to two thousand dollars to cover expenses through June 30 of

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Yet another month has passed and you haven't availed yourself of the many benefits of advertising in the EXCITER. See page 2 for details so you can correct this oversight.

getting the van operational. The motion was seconded by David KD4WQU, and was carried by membership vote.

The annual election of Officers and Board members was held. Rick read the Nominating Committee report, and all nominees took the stage. The floor was then opened to nominations. On motion by K4MC, seconded by WA4LHE, the nominations were closed. The following Officers and Board members were elected by majority vote:

RARS Officers - Two Year Term:

President- Cyndi Wood - KD4ACW
Secretary- Jeff Wittich - AC4ZO

Board Positions - One Year Term:

Public Service Director- Doug Sweet - AD4UL
Education Director- Lynn Pitegoff - KO4QH
RARS Hamfest chairman-
Ronnie Reams - WA4MJF
RARS Field Day chairman-
Mike Murphy - WA4BPJ
Publicity Director- Gary Pearce - KN4AQ
SIG Coordinator- Ed Alderman - WA4PEN
Exciter Editor- Curt Phillips - KD4YU
FM Repeater Chairperson-
Danny Musten - KD4RAA
RARS At Large Director- Pat Fix - KE4FCJ
RARS At Large Director- Charlie Brown - W4VFJ
ARRL Liaison- Chuck Littlewood - K4HF

Also, the following chairpersons were elected to One Year Terms:
RARS VE Coordinator-
Vince Yakamavich - AA4MY
W4DW Trustee- Lynn Pendleton - K4NYV

The business meeting then adjourned at 8:01p and the annual Christmas party began, with entertainment provided by the RARS All-ham Band.

Jeff Wittich, AC4ZO
Secretary

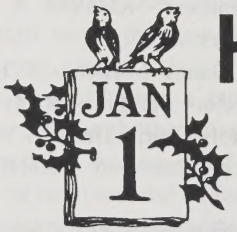
Amateur Radio - A National Resource

Raleigh Amateur Radio Society, Inc.
P.O. Box 17124
Raleigh, NC 27619

Address correction requested.

First Class Mail

Calendar of Events: January 1996



HAPPY NEW YEAR!

Jan 2. : **Regular RARS meeting; Forest Hills Baptist Church**
see page 1 for program info and page 2 for directions

Jan. 10: **RARS VHF/UHF SIG meeting, info, Woody, KJ4SO, 848-1844**

Jan. 11: Information Highway User Group, info, Russ Lyday, 782-8703

Jan. 15: **Scanner/Shortwave Listening SIG, info, Curt KD4YU, 772-0207**

Jan. 16: **Regular RARS Advisory Board; 7PM Forest Hills Baptist Church**
ALL RARS MEMBERS INVITED!!

send additions, changes and corrections to the Editor as listed on page 2